

COUNT OF BIRD NESTS IN A SMALL TOWN :

DORANDA, SUBURB OF RANCHI, BIHAR STATE

BY

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Doranda is a town spreading over 3600 acres—a typical small civil station consisting mostly of bungalows in spacious compounds and three or four double-storeyed houses. The population is about 25,000. It is situated almost on the Tropic of Cancer and about 180 miles away from the sea. It is 2,000 feet above sea-level and has an average annual rainfall of 53.9 inches. The mean maximum and minimum temperatures are 84°F and 65°F, but the absolute maximum and minimum temperatures recorded are 110.3°F (May) and 37.9°F (January).

About two-thirds of the area of the town is rough close grass of playgrounds and compounds. Trees and hedges are either along roads or on the perimeter of compounds. There is only one mango orchard and soft fruit in the gardens are rare, as are vegetable patches. Most of the trees in the gardens are ornamental and the sole source of food for birds are the various fig trees, *Eugenia jambolana*, *Artocarpus integrifolia*, *Anthocephalus kadamba*, and *Bombax malabaricum*. There is abundant water because two streams skirt the town and there is a large tank.

Methods of counting : In 1951 all the nests were counted and observed so as to identify the birds responsible for them. Other birds whose nests were found to be too few were also counted on trees on which they used to roost at evening but the result of those counts are not included here. The work was begun on December 1st, 1950, and concluded on November 30th, 1951. The nest count was applied only to resident birds and one species, the Baya Weaver Bird (*Ploceus philippinus*) which is a summer visitor to Doranda. The nests were all counted by the author personally assisted by a friend, and a team of observers was not used. Each tree on which nests had been counted was marked to avoid a recount, and every effort was made to ensure that the same nest was not counted twice over. The overall count was made only once, and repeat observations over the whole area were not carried out. The probable error is estimated at 15 per cent. It is expected that the count will be repeated in 1953-54, when it will be possible to estimate whether any variations have taken place.

A list of birds is also given. This list is divided into four sub-heads, namely : birds seen throughout the year, birds seen only in summer, birds seen only in winter, and birds seen only in the rains. For this purpose winter has been taken as from September 15th to March 15th, summer from March 16th to June 15th, and the rains from June 16th to September 14th. This classification is admittedly arbitrary, but was adopted for lack of any alternative. This list has been given to exemplify the variations in the bird population that occur at various times of the year ;

as also to show that not all resident birds breed in Doranda, whereas one bird comes into the area only to breed.

The following birds were seen only once in 1951 :

1. PITTA (*Pitta brachyura*), on May 11th, 1951.
 2. FAIRY BLUE BIRD (*Irena puella*), male, on May 9th, 1951. According to Stuart Baker the occurrence of this bird in Bihar is unlikely, as this State falls in the gap between the two zones of distribution which he has given for this bird. This example was observed early in the morning and stayed in the compound for about an hour. The shortest distance from which it was observed was about 10 feet, and at this distance it was impossible to mistake the bird. It was extremely shy and resented observation. It departed after an hour and was never seen again, though I remained on the lookout for it always. My servant who first saw and reported the arrival of a new bird in the compound described a female, but when I went to see I could see only a single male. My conclusion is that a straggling pair arrived during the night on a passage to their breeding grounds [?] and spent the night in my compound. That may account for the fact that none have been seen after that solitary occasion
 3. WHITEBREASTED WATERHEN (*Amaurornis phoenicurus*),
 4. REDSTART (*Phoenicurus ochrurus*),
 5. SHOVELLER (*Spatula clypeata*),
 6. MALLARD (*Anas platyrhyncha*),
 7. ASHYCROWNED FINCH-LARK (*Eremopterix grisea*),
- and
8. RUBYTHROAT (*Erithacus calliope*), on November 15th, 1951.

Apart from the Waterhen and the Ashycrowned Finch-Lark which are resident in the State, the other birds would appear to be passage migrants through Doranda.

BREEDING BIRDS

The following nest counts of the permanent residents were obtained. The trees are given in the order of their popularity with the species as sites for nests.

1. HOUSE CROW : 100 nests, mostly on *Ficus religiosa*, *Mangifera indica*, *Cedrela toona*, and *Diospyros* sp.; other trees used were *Eugenia jambolana*, *Bombax malabaricum*, *Ficus glomerata*, *Erythrina indica*, *Schleichera trijuga*, *Tamarindus indicus*, *Artocarpus integrifolia*, *Sterculia alata*, *Swietenia* sp., *Dalbergia sissoo*, *Adina cordifolia*, *Albizia procera*, *Ficus infectoria*, *Spondias mangifera*, *Albizia lebbek*, *Melia azadirach*, and *Ficus bengalensis*. Only one case of fostering was noticed. In one nest all the young, three in number, were of the Koel.

2. YELLOWCHECKED TIT : 3 nests on *Mangifera indica* and *Tamarindus indicus*.

3. BLACK DRONGO : 12 nests on *Mangifera indica*, *Cedrela toona*, *Ficus religiosa*, *Swietenia* sp., *Millingtonia hortensis* and *Cassia siamea*,

4. COMMON MYNA : 69 nests on *Cedrela toona*, *Mangifera indica*, *Ficus religiosa*, *Phoenix* sp., *Ficus infectoria*, *Ficus bengalensis*, *Erythrina indica*, *Schleichera trijuga* and *Albizia procera*. 35 nests were in holes in trees, 20 in holes in walls or buildings, the rest on trees.

5. PIED MYNA : 131 nests on *Mangifera indica*, *Cedrela toona*, *Eugenia jambolana*, *Ficus religiosa*, *Ficus bengalensis*, *Ficus infectoria*, *Sterculia alata*, *Tamarindus indicus*, *Ficus glomerata*, *Millingtonia hortensis*, *Dalbergia sissoo*, *Bombax malabaricum*, bamboo and a dead tree.

6. HOUSE SPARROW : 43 nests, mostly in buildings, though all buildings were not inspected from the inside ; but 6 in *Beaumontia* sp., 4 in *Bougainvillea* sp., and 1 in a bamboo clump.

7. CRIMSONBREASTED BARBET : 12 nests, all in holes in *Ficus religiosa*, *Mangifera indica*, *Ficus infectoria*, *Cedrela toona* and *Grevillea robusta*.

8. LARGE INDIAN PARAKEET : 3 nests, all in holes in *Ficus religiosa*, *Ficus infectoria* and *Mangifera indica*.

9. ROSERINGED PARAKEET : 8 nests, all in holes in *Mangifera indica*, *Cedrela toona*, *Anthocephalus kadamba*, *Ficus religiosa* and *F. infectoria*.

10. BLOSSOMHEADED PARAKEET : 2 nests in holes in *Ficus religiosa* and a dead tree.

11. REDHEADED MERLIN : 1 nest on a *Millingtonia hortensis*.

12. PARIAH KITE : 16 nests on *Millingtonia hortensis*, *Ailanthus excelsa*, *Ficus religiosa*, *Cedrela toona*, *Mangifera indica*, *Bombax malabaricum*, *Eugenia jambolana* and *Cassia siamea*.

13. SPOTTED DOVE : 1 nest in a hedge of *Duranta* sp.

14. LITTLE EGRET : 20 nests in two heronries on *Mangifera indica* and *Bombax malabaricum*.

15. CATTLE EGRET : 10 nests in the same heronry as the Little Egret.

16. POND HERON : 12 nests, all in one heronry.

17. NIGHT HERON : 10 nests, all in one heronry, but a different one from that favoured by the Pond Herons.

18. THE BAYA : (Summer visitor for breeding) 3 nests, all on *Phoenix* sp.

Total number of nests : 456 ; out of 38 resident species only 18 breed in the area.

BIRDS BREEDING OUTSIDE THE AREA SURVEYED

Several species were found nesting in large numbers just outside Doranda town. For example, 35 nests of the Baya were situated across a stream. The Yellowcheeked Tit is numerous in Doranda, but mostly breeds outside the town. The White-eye is equally numerous ; flocks of 30 were counted, but no nests were found in Doranda. 6 Mahratta Woodpeckers were also counted but no nests were found. 28 Spotted Doves were seen in the area but only one nest was found. The population of Spotted Owlets in Doranda is 21, but none of them bred in the area in 1951, though one pair was observed breeding in 1950.

From the nest-count it would appear there was one breeding pair to every 9 acres, approximately, a figure not too low for an area like Doranda, where two-thirds is rough grass.

LIST OF BIRDS

Species	Seen throughout the year	Seen only in summer	Seen only in winter	Seen only in rains
1. The Jungle Crow (<i>Corvus macrorhynchos</i>)	...	x		
2. The House Crow (<i>Corvus splendens</i>)	...	x		
3. The Tree-Pie (<i>Crypsirina vagabunda</i>)	...	x		
4. The Yellowcheeked Tit (<i>Parus xanthogenys</i>)	...	x		
5. The Striated Babbler (<i>Turdoides earlii</i>)	...			x
6. The Rufousbellied Babbler (<i>Dumetia hyperythra</i>)	...		x	
7. The Redvented Bulbul (<i>Pycnonotus cafer</i>)	...	x		
8. The Pied Bushchat (<i>Saxicola caprata</i>)	...		x	
9. The Collared Bushchat (<i>Saxicola torquata</i>)	...		x	
10. Hodgson's Redstart (<i>Phoenicurus hodgsoni</i>)	...		x	
11. The Indian Redstart (<i>Phoenicurus ochruros</i>)	...		x	
12. The Whitespotted Bluethroat (<i>Luscinia svecica</i>)	...		x	
13. The Ruby-Throat (<i>Erithacus calliope</i>)	...		x	
14. The Magpie-Robin (<i>Copsychus saularis</i>)	...	x		
15. The Redbreasted Flycatcher (<i>Muscicapa parva</i>)	...		x	
16. The Paradise Flycatcher (<i>Terpsiphone paradisea</i>)	...		x	
17. The Grey Shrike (<i>Lanius excubitor</i>)	...	x		
18. The Rufousbacked Shrike (<i>Lanius schach</i>)	...		x	
19. The Wood-Shrike (<i>Tephrodornis pondiceriana</i>)	...		x	
20. The Small Minivet (<i>Pericrocotus peregrinus</i>)	...		x	
21. The Black Drongo (<i>Dicrurus macrocercus</i>)	...	x		
22. The Grey Drongo (<i>Dicrurus longicaudatus</i>)	...		x	
23. The Bronzed Drongo (<i>Dicrurus aeneus</i>)	...		x	
24. The Tailor Bird (<i>Orthotomus sutorius</i>)	...	x		
25. Sykes's Tree-Warbler (<i>Hippolais rama</i>)	...		x	

Species	Seen through- out the year	Seen only in summer	Seen only in winter	Seen only in rains
26. The Lesser Whitethroat (<i>Sylvia curruca</i>)	...		x	
27. Tickell's Willow-Warbler (<i>Phylloscopus afinis</i>)	...		x	
28. The Brown Willow-Warbler (<i>Phylloscopus collybita</i>)	...		x	
29. The Green Willow-Warbler (<i>Phylloscopus trochiloides</i>)	...		x	
30. The Large Crowned Willow- Warbler (<i>Phylloscopus occipitalis</i>)	...		x	
31. The Ashy Wren-Warbler (<i>Prinia socialis</i>)	...		x	
32. The Fairy Bluebird (<i>Irena puella</i>)	...	x		
33. The Blackheaded Oriole (<i>Oriolus xanthornus</i>)	... x			
34. The Greyheaded Myna (<i>Sturnus malabaricus</i>)	... x			
35. The Common Myna (<i>Sturnus tristis</i>)	... x			
36. The Pied Myna (<i>Sturnus contra</i>)	... x			
37. The Baya (<i>Ploceus philippinus</i>)	...	x		
38. The House Sparrow (<i>Passer domesticus</i>)	... x			
39. The Common Swallow (<i>Hirundo rustica</i>)	...		x	
40. The White Wagtail (<i>Motacilla alba</i>)	...		x	
41. The Whitefaced Wagtail (<i>Motacilla alba leucopsis</i>)	...		x	
42. The Eastern Grey Wagtail (<i>Motacilla cinerea</i>)	...		x	
43. The Blueheaded Wagtail (<i>Motacilla flava</i>)	...		x	
44. The Forest Wagtail (<i>Dendronanthus indicus</i>)	...		x	
45. The Indian Tree Pipit (<i>Anthus hodgsonii</i>)	...		x	
46. The Indian Pipit (<i>Anthus richardi</i>)	...		x	
47. The Ashycrowned Finch-Lark (<i>Eremopterix grisea</i>)	...		x	
48. The White-eye (<i>Zosterops palpebrosa</i>)	... x			
49. Tickell's Flowerpecker (<i>Dicaeum erythrorhynchum</i>)	... x			
50. The Indian Pitta (<i>Pitta brachyura</i>)	...	x		
51. The Mahratta Woodpecker (<i>Dendrocopus mahrattensis</i>)	... x			
52. The Crimsonbreasted Barbet (<i>Megalaima haemacephala</i>)	... x			
53. The Common Hawk-Cuckoo (<i>Cuculus varius</i>)	...	x		

Species	Seen throughout the year	Seen only in summer	Seen only in winter	Seen only in rains
54. The Pied Crested Cuckoo (<i>Clamator jacobinus</i>)				x
55. The Koel (<i>Eudynamis scolopacea</i>)	...	x		
56. The Crow-Pheasant (<i>Centropus sinensis</i>)	...		x	
57. The Large Indian Parakeet (<i>Psittacula eupatria</i>)	...	x		
58. The Roseringed Parakeet (<i>Psittacula krameri</i>)	...	x		
59. The Blossomheaded Parakeet (<i>Psittacula cyanocephala</i>)	...	x		
60. The Indian Roller (<i>Coracias benghalensis</i>)	...	x		
61. The Green Bee-eater (<i>Merops orientalis</i>)	...		x	
62. The Common Kingfisher (<i>Alcedo atthis</i>)	...		x	
63. The Whitebreasted Kingfisher (<i>Halcyon smyrnensis</i>)	...	x		
64. The Hoopoe (<i>Upupa epops</i>)	...		x	
65. The House Swift (<i>Apus affinis</i>)	...		x	
66. The Spotted Owlet (<i>Athene brama</i>)	...	x		
67. The Pondicherry Vulture (<i>Sarcogyps calvus</i>)	...	x		
68. The Longbilled Vulture (<i>Gyps indicus</i>)	...			x
69. The Bengal Vulture (<i>Pseudogyps bengalensis</i>)	...	x		
70. The Scavenger Vulture (<i>Neophron percnopterus</i>)	...	x		
71. The Peregrine Falcon (<i>Falco peregrinus</i>)	...		x	
72. The Laggar Falcon (<i>Falco jugger</i>)	...		x	
73. The Redheaded Merlin (<i>Falco chiquera</i>)	...	x		
74. The Kestrel (<i>Falco tinnunculus</i>)	...		x	
75. The Great Spotted Eagle (<i>Aquila clanga</i>)	...		x	
76. The Small Spotted Eagle (<i>Aquila pomarina</i>)	...	x		
77. Bonelli's Eagle (<i>Hieraëtus fasciatus</i>)	...			x
78. Pallas's Fishing Eagle (<i>Haliaëtus leucoryphus</i>)	...		x	
79. The Greyheaded Fishing-Eagle (<i>Ichthyophaga ichthyaëtus</i>)	...		x	
80. The Brahminy Kite (<i>Haliastur indus</i>)	...			x
81. The Pariah Kite (<i>Milvus migrans</i>)	...	x		

Species	Seen throughout the year	Seen only in summer	Seen only in winter	Seen only in rains
82. The Blackwinged Kite (<i>Elanus caeruleus</i>)	...		x	
83. The Marsh Harrier (<i>Circus aeruginosus</i>)	...		x	
81. The Sparrow-Hawk (<i>Accipiter nisus</i>)	...		x	
85. The Green Pigeon (<i>Treron phoenicoptera</i>)	...		x	
86. The Blue Rock Pigeon (<i>Columba livia</i>)	...		x	
87. The Spotted Dove (<i>Streptopelia chinensis</i>)	... x			
88. The Red Turtle Dove (<i>Oenopopelia tranquebarica</i>)	...		x	
89. The Whitebreasted Waterhen (<i>Amaurornis phoenicurus</i>)	...	x		
90. The Coot (<i>Fulica atra</i>)	...	x		
91. The River Tern (<i>Sterna aurantia</i>)	...		x	
92. The Spurwinged Plover (<i>Hoplopterus duvauceli</i>)	...			x
93. The Redwattled Lapwing (<i>Lobivanellus indicus</i>)	...			x
94. The Fantail Snipe (<i>Capella gallinago</i>)	...		x	
95. The Large Cormorant (<i>Phalacrocorax carbo</i>)	...		x	
96. The Shag (<i>Phalacrocorax fuscicollis</i>)	...			x
97. The Little Cormorant (<i>Phalacrocorax niger</i>)	... x			
98. The Snake-Bird (<i>Anhinga rufa</i>)	...			x
99. The Whitenecked Stork (<i>Ciconia episcopus</i>)	.. x			
100. The Little Egret (<i>Egretta garzetta</i>)	... x			
101. The Cattle Egret (<i>Bubulcus ibis</i>)	... x			
102. The Pond Heron (<i>Ardeola grayii</i>)	... x			
103. The Little Green Heron (<i>Bulorides striatus</i>)	...		x	
104. The Night Heron (<i>Nycticorax nycticorax</i>)	... x			
105. The Bittern (<i>Botaurus stellaris</i>)	...		x	
106. The Cotton Teal (<i>Netta pus coromandelianus</i>)	...		x	
107. The Mallard (<i>Anas platyrhyncha</i>)	...		x	
108. The Shoveller (<i>Spatula clypeata</i>)	...		x	
109. The Little Grebe (<i>Podiceps ruficollis</i>)	..		x	